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Revisions — Pages 1-280

Page

- 7** *ACADEMIC CALENDAR*, second semester 1962-63, add: Founders' Day, Mar. 12, T.
- 7** *Second Semester 1962-63*, change *University Week events* to: F., Sa.
- 70** *THE UNIVERSITY — AN HISTORICAL SKETCH*, add to last paragraph: The National League for Nursing and The National Association of Schools of Music.
- 94** *NUMBER OF UNITS REQUIRED FOR DEGREES*, *Bachelor of Science in Nursing*: Change units to: 127. Add to list: Bachelor of Science in Hydrology.....146
- 95** *QUALITY OF WORK*, (pp 94-95), line 1, after *Education*, insert: Engineering.
- 99** *FINAL GRADES*, add: See also *SPECIAL GRADES* below.

- 100** *SPECIAL GRADES*, substitute this paragraph:

The grades P, passing, and S, superior, are awarded only in certain courses taken for graduate credit. The only grades available in these circumstances for courses numbered 299, 399 and 400 are S, P, 3, 4, 5, 6, 7, 8. The only grades available for all other courses in the 400 series are S, P, 5, 6, 7, 8.

- 103** *RESIDENCE HALL RESERVATION*, for second sentence, substitute: This should be filled out immediately and mailed to the Department of Student Housing with a deposit of \$25.00.

- 107** *REGISTRATION FEE*, for second paragraph, substitute:

Graduate students registered for internship, thesis, or dissertation only, pay a registration fee of \$10.00. Graduate students registered for thesis or dissertation and French 1g-2g, German 1g-2g, or Russian 1g-2g, and no other course work, pay a registration fee of \$44.50. A fee of \$2.00 per unit with a minimum of \$6.00 is payable each semester by graduate students carrying work *in absentia* other than thesis or dissertation. The nonresident tuition fee is payable in each case if applicable.

- 109** *ROOM*, for first sentence, substitute: Each application for a residence hall room must be submitted with a deposit of \$25.00.

- 109** *RESIDENCE HALL FEES*, delete entire section and substitute:

<i>Residence Hall</i>	<i>Semester Rate Per Student</i>	
	<i>Double Occupancy</i>	<i>Triple Occupancy</i>
Apache, Coconino, Graham, Greenlee, Huachuca, Kaibab, Manzanita, Santa Cruz	\$142.00	\$132.00*
Mohave		132.00
Gila, Yuma		114.00
Navajo, Pinal	114.00	104.00*
Maricopa		104.00
Arizona, Cochise, East Stadium, Hopi, Papago, Pima, Yavapai	110.00	100.00*

* Rate applies only when three students are permanently assigned to a room normally occupied by two persons.

Single rooms may be assigned if available. Single occupancy of a double room requires payment of twice the double-room rate. A charge of \$1.00 is assessed for changing halls after the original assignment has been accepted.

- 141** *STUDENT GUIDANCE SERVICES*, for main section title substitute:
STUDENT COUNSELING SERVICES

- 141** For two paragraphs under "*Student Guidance Bureau*" substitute:
STUDENT COUNSELING BUREAU — The Student Counseling Bureau, a division of the Department of Psychology, offers students professional counseling

Vol

THE
UNIVERSITY OF ARIZONA
RECORD

*Announcements in this catalogue concerning
regulations, fees, curricula, or other matters,
are subject to change without notice.*

STATEMENT OF MAILING PRIVILEGE

The University of Arizona Record is issued seven times a year. Published monthly during July, August, and October and semimonthly during April and June.

Entered as second-class matter April 28, 1933, at the Post Office at Tucson, Arizona, under the Act of March 24, 1912.

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- 141** *STUDENT GUIDANCE SERVICES, for main section title substitute:
STUDENT COUNSELING SERVICES*

- 141** *For two paragraphs under "Student Guidance Bureau" substitute:
STUDENT COUNSELING BUREAU — The Student Counseling Bureau, a division of the Department of Psychology, offers students professional counseling*

on educational, personal, or career problems. The most common service is assistance in identifying aptitudes, interests, and personality traits for consideration in choice of a vocation or educational program. Assistance is also offered in dealing with emotional disturbances, personal problems, or situational aspects which detract from the student's ability to derive maximum benefit from his University experience. No charge is made for this service. Counseling is normally made available through scheduled appointments but should a student feel the need to see a counselor immediately, he could at most times be seen without an appointment.

A reading improvement and study skills program is conducted within the Student Counseling Bureau. The program is conducted individually, in small groups, and in classes to meet the needs of students at various levels of competence and proficiency. Participation in the program is voluntary. All classes are non-grade, non-credit, and require no additional fee. Applicants for this service should come to the Student Counseling Bureau for diagnostic testing and placement in an appropriate course. Instruction is sequential and for satisfactory results students should plan to enroll on the starting date and attend class sessions for the full course of instruction. Classes begin on the second week after instruction has begun in other University classes and continue for 12 weeks. Time and place of enrollment will be announced in the student newspaper and University notices. Diagnosis and consultation on student reading and study skills problems continue by appointment throughout the regular academic year. Specific offerings are as follows:

(a) Developmental Reading Improvement (I, II)

Designed to enable a college-level reader to improve in vocabulary, power, and speed in reading. P, high rank on reading achievement tests. Enrollment limited; priority to freshmen.

(b) Reading and Study Skills (I, II)

For students desiring to perfect the ability to read and learn. Emphasis on note-taking, preparing for and taking examinations, improving in basic reading skills, and studying various types of subject matter. P, average rank on reading achievement tests. Enrollment limited; priority to freshmen.

(c) Individualized Reading and Study Skills (I, II)

Introductory course designed so that students can progress at their own rate of learning. Recommended for below-average readers. Enrollment limited; priority to freshmen.

(d) Laboratory Practice in Reading

Supervised practice on reading-rate accelerators and other equipment in the reading laboratory is available for the use of students enrolled in any of the above courses.

148 *STUDENT ACTIVITY ORGANIZATIONS, change "Student Religious Council" to: Student Religion Council.*

149 *RELIGIOUS ACTIVITIES, first line, first paragraph, and second line, third paragraph, change: "Student Religious Council" to: Student Religion Council.*

149 *THE UNIVERSITY FORUM COMMITTEE, last line, change "Student Religious Council" to: Student Religion Council.*

152 *RIECKER LECTURESHIP FOUNDATION, for second sentence, substitute: The original endowment of \$10,000 has been increased by the contributions of a friend of the University to a total of \$15,000. The income from this fund provides for one lecture during each academic year, which is delivered by a visiting speaker approved by the Board of Regents.*

154 *Insert new section to precede the college sections beginning on page 155:*

THE HONORS PROGRAM

Many departments of The University of Arizona have long had provision for

offering superior students, at the junior and senior year levels, the opportunity to do considerable independent work leading to the bachelor's degree with honors. A much broader University-wide Honors Program went into effect in the second semester of 1961-62 for a selected group of freshmen. Rapidly, this program will be expanded to include all four years of undergraduate study.

Admission to the Honors Program requires an excellent academic record, but it is not based on grades alone. Each participant must be recommended by at least one faculty member who recognizes in the student qualities of intellectual curiosity, of independence of judgment, and of willingness to work which indicate that he may grow into a true scholar. Membership carries privileges and entails obligations. The privileges include participation in special classes for superior students, the opportunity to do much independent work under the personal direction of outstanding teachers, and the right to register for courses not normally open to students until they have reached a more advanced standing. One may consider as a privilege, also, the provision for regular interviews before a panel of faculty members who seek to evaluate the participant's progress and to advise him about the attainment of his academic and professional goals.

- 162** COLLEGE OF AGRICULTURE — SCHOOL OF HOME ECONOMICS, Home Economics Education major, *Group A*, add: (Home Economics) 116.

COLLEGE OF BUSINESS AND PUBLIC ADMINISTRATION

- 166** For all material (*Bachelor of Science in Public Administration*) on page 166 and top of page 167, substitute:

BACHELOR OF SCIENCE IN PUBLIC ADMINISTRATION

First Semester		Freshman Year		Second Semester	
Subject	Units	Subject	Units		
Freshman Composition	3	Freshman Composition	3		
Philosophy or science *	3-4	Philosophy or science *	3-4		
Speech 2 (Principles) or Pub. Ad. 1 (Social Ad.)	3	Pub. Ad. 1 (Social Ad.) or Speech 2 (Principles)	3		
Soc. 1 (Intro.) or Soc. 2 (Soc. Probs.)	3	Soc. 2 (Soc. Probs.) or Soc. 1 (Intro.)	3		
Psych. 1a (Elementary)	3	Psych. 1b (Elementary)	3		
HPER or P.E.	1	HPER or P.E.	1		
Mil. or Air Sci. 1a (men)	1	Mil. or Air Sci. 1b (men)	1		
		16-18		16-18	

* (a) 8 units in one laboratory science, or (b) 6 units of philosophy including Phil. 12a. Students planning to enter the law enforcement major should take Zoo. 1a-1b. Microbiol. 1a-1b and Biol. 1a-1b are recommended for other majors.

Sophomore Year

First Semester		Second Semester	
Subject	Units	Subject	Units
Econ. 1a (Intro.)	3	Econ. 1b (Intro.)	3
Govt. 2 (Am. Nat. Govt.)	3	Govt. 3 (Am. St. & Loc. Govt.)	3
Humanities 50a	4	Humanities 50b	4
P.E. (women) or Mil. or Air Sci. 2a (men)	1	P.E. (women) or Mil. or Air Sci. 2b (men)	1
Electives **	5—6	Electives **	5—6
	16—17		16—17

** Students intending to enter the government service major must elect Hist. 1a-1b (6 units) in the sophomore year, and Math. 11 if they lack 1½ units of high school algebra.

- 174** BACHELOR OF SCIENCE IN PUBLIC ADMINISTRATION, *Upper-Division Courses in Major Fields*, first line, change "three" to: four.

- 174** For Government Service Major section, substitute:

GOVERNMENT SERVICE

Junior-Senior Years

The major in government service is designed to prepare students for entry into a variety of administrative positions in local, state, or national governments.

Entry into federal government service is most frequently through the Civil Service Entrance Examination. For entry into the foreign service of the State Department, independent written-oral examinations are currently prescribed. The student should consult an adviser concerning the appropriate time and place for taking these examinations, and similarly for local and state examinations.

(a) The following courses are required for the major:

<i>Course</i>	<i>Units</i>
Acct. 251	Survey of Accounting 3
Econ. 245	Public Finance 3
Econ. 272	Government and Business 3
Govt. 261a-261b	Public Administration 6
Govt. 267	Public Personnel Administration 3
Math. 91	Introduction to Statistics 3

(b) In addition to the above courses, at least 19 units must be elected from the following group:

<i>Course</i>	<i>Units</i>
Bus. Ad. 279a-279b	Urban Planning & Land Utilization 6
Econ. 205	Labor Problems 3
Geog. 251	Political Geography 3
Geog. 256	Urban Geography 3
Govt. 213	Municipal and Metropolitan Government 3
Govt. 226	American Political Thought 3
Govt. 235	Public Opinion 3
Govt. 237	The Legislative Process 3
Govt. 272a-272b	Principles of Constitutional Law 6
Govt. 274	Legal Aspects of Administration 3
Hist. 211	History of U.S. since 1933 3
Soc. 253	Group Dynamics 3
Soc. 289	Population Problems 3

(c) In addition to (a) and (b) above, each candidate for the degree must complete a minimum of 15 units consisting of courses selected from the offerings of departments in the University other than the Department of Public Administration and Government. These must be in courses other than those prescribed above as lower-division requirements and at least 9 of the 15 must be upper-division (i.e., numbered above 99).

175 SOCIAL ADMINISTRATION, for first two lines and list of courses which follows, substitute:

Junior-Senior Years

(a) The following courses are required for the major:

<i>Course</i>	<i>Units</i>
Acct. 251	Survey of Accounting 3
Econ. 245	Public Finance 3
Govt. 261a-261b	Public Administration 6
Pub. Ad. 138	Fields of Social Work 3
Pub. Ad. 241	Public Welfare Administration 3
Pub. Ad. 242	Case Work 3
Pub. Ad. 243	Social Legislation 3
Soc. 261	Social Statistics 3

(b) In addition to the above courses, at least 13 units must be selected from the following group:*

<i>Course</i>	<i>Units</i>
Bus. Ad. 201	Personnel Management 3
Microbiol. 157	Communicable Diseases and their Control 2
Psych. 101	Human Relations 3
Psych. 216	Personality 3
Pub. Ad. 240	Child Welfare 2
Pub. Ad. 245a	Correctional Counseling 2
Pub. Ad. 284	Administration of Health Agencies 3
Soc. 241	Juvenile Delinquency 3
Soc. 253	Group Dynamics 3
Soc. 285	Sociology of the Family 3
Soc. 290	Problems of Aging 3

*Students interested in the administration of public recreation should elect, in addition to the prescribed 40 units, the following three courses: HPER 171, 275, and 283.

(c) In addition to the above 40 units each candidate for the degree must complete a minimum of 15 units selected from the offerings of departments in the

University other than the Department of Public Administration. Of these at least 9 units must be upper-division (i.e., numbered above 99). Of the total 55 units in this and the two foregoing categories of requirements, no more than 24 may be taken in sociology.

175 LAW ENFORCEMENT AND CORRECTIONAL ADMINISTRATION, (separate majors in correctional administration and law enforcement administration have been established), for entire section substitute:

CORRECTIONAL ADMINISTRATION

This specialized major is designed to fit students for staff skills and administrative responsibility in a wide variety of correctional institutions and agencies. It offers preparation for subsequent graduate work in correctional, probation, and parole administration.

Junior-Senior Years

(a) The following courses are required for the major:

Course		Units
Acct. 251	Survey of Accounting	3
Govt. 261a-261b	Public Administration	6
Psych. 218	Abnormal Psychology	3
Pub. Ad. 245a-245b	Correctional Counseling	4
Pub. Ad. 287	Criminal Psychopathology	2
Pub. Ad. 288	Penology	3
Pub. Ad. 289	Prison Administration	3
Soc. 241	Juvenile Delinquency	3

(b) In addition to the above courses, at least 13 units must be selected from the following group:

Course		Units
Acct. 241	Governmental & Institutional Accounting	3
Govt. 267	Public Personnel Administration	3
Govt. 277	Jurisprudence and Legal Systems	3
Govt. 279	The Judicial Process	3
Pub. Ad. 138	Fields of Social Work	3
Pub. Ad. 240	Child Welfare	2
Pub. Ad. 241	Public Welfare Administration	3
Pub. Ad. 243	Social Legislation	3
Soc. 212	Sociology of Collective Behavior	3
Soc. 222	Sociology of Minority Relations	3
Soc. 253	Group Dynamics	3
Soc. 261	Social Statistics	3

(c) In addition to the above 40 units, each candidate for the degree must complete a minimum of 15 units selected from the offerings of departments in the University other than the Department of Public Administration. Of these at least 9 units must be upper-division (i.e., numbered above 99). Of the total 55 units in this and the two foregoing categories, no more than 18 may be taken in sociology.

LAW ENFORCEMENT ADMINISTRATION

This specialized major is designed to fit students for operational and staff skills and administrative responsibility in the nation's complex structure of law enforcement. It offers preparation for subsequent graduate work in police and law enforcement administration.

Junior-Senior Years

(a) The following courses are required for the major:

Course		Units
Acct. 251	Survey of Accounting	3
Govt. 261a-261b	Public Administration	6
Pub. Ad. 101	Introduction to Law Enforcement	3
Pub. Ad. 265	Federal Law Enforcement Systems	3
Pub. Ad. 266	Police and Law Enforcement Administration	3
Pub. Ad. 268	Criminal Investigation & Report Preparation	3
Pub. Ad. 269	Traffic Administration	3
Pub. Ad. 270	Police Problems and Practices	3

(b) In addition to the above courses, at least 13 units must be selected from the following groups:

Course	Units
Govt. 267	Public Personnel Administration
Govt. 272a-272b	Prin. of Constitutional Law
Govt. 279	The Judicial Process
Pub. Ad. 138	Fields of Social Work
Pub. Ad. 245a	Correctional Counseling
Pub. Ad. 287	Criminal Psychopathology
Pub. Ad. 288	Penology
Pub. Ad. 289	Prison Administration
Soc. 241	Juvenile Delinquency
Soc. 253	Group Dynamics
Soc. 261	Social Statistics

(c) In addition to the above 40 units, each candidate for the degree must complete a minimum of 15 units selected from the offerings of departments in the University other than the Department of Public Administration. Of these at least 9 units must be upper-division (i.e., numbered above 99). Of the total 55 units in this and the two foregoing categories of requirements, no more than 12 may be taken in sociology.

COLLEGE OF EDUCATION

- 179** *Administrative Certificates, 12th line, change to: School house planning (Education 373).*

COLLEGE OF FINE ARTS

- 208** *BACHELOR OF ARCHITECTURE DEGREE, Third Year of curriculum, delete: Meteor. 71; move "Arch. 128" from second to first semester; change first semester total units from "18" to: 17; add to second semester: Arch. 148.*
- 209** *BACHELOR OF FINE ARTS DEGREE, Major in Art Education, substitute for junior and senior year programs:*

Junior Year

	Units per semester	
Art 150 (Principles of Art Education) & Ed. 197L (Teaching of Art)	3	3
Elective & Govt. 100 (Constitutions)	3	3
Art 240a-240b (Crafts)	2	2
Art 55a-55b (Painting I)	2	2
Ed. 151 (Ed. Psych.) & Ed. 231 (Principles of Secondary Education)	3	3
Art History Elective	3	3
	16	16

Senior Year

Art 42a-42b (Ceramics)	2	2
Art 43a-43b (Sculpture)	2	2
Art 61 (Intaglio Print) or Art 62 (Relief Print)	2	—
Ed. 257 (Tests & Meas.) and Art 104 (Art & Art Supervision)	3	3
Ed. 234 (High School Methods) & Ed. 139 (Student Teaching)	3	8
Elective	3-4	3
	15-16	18

COLLEGE OF MINES

- 237** *DEGREES section, Bachelor of Science, Master of Science, and Doctor of Philosophy, add: Hydrology.*
- 246** *DEGREE CURRICULA IN COLLEGE OF MINES (pages 241-249), preceding "Curriculum Leading to Degree Bachelor of Science in Metallurgical Engineering," insert:*

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN HYDROLOGY

The nation's first broad training program in scientific hydrology was established in September, 1961, by the University. Hydrology is the science underlying the exploration, development, and management of the water resources of the earth. The continued growth of the technologically-advanced economies and the advance of the underdeveloped economies in the world community depend upon our ability

to meet rising demands upon water resources. Hydrologists are in urgent demand today and, as the use of water accelerates, their services will be increasingly in demand by industry, agriculture, and governmental agencies, both here and in other nations.

Freshman Year			
First Semester		Second Semester	
Subject	Units	Subject	Units
Math. 44 (College Algebra & Trig.)	5	Math. 79a (Anal. Geom. & Calculus)	5
Chem. 2a (Fund. of Chem.)	4	Chem. 2b (Fund. of Chem.)	4
Freshman Composition	3	Freshman Composition	3
S.E. 10 (Engineering Graphics)	3	S.E. 12 (Descriptive Geometry)	3
HPER or P.E.	1	Geol. 4 (Intro. to Hydrology)	1
Mil. (or Air) Sci. 1a (men)	(1)	HPER or P.E.	1
	16 or 17	Mil. (or Air) Sci. 1b (men)	(1)
			17 or 18
Sophomore Year			
Math. 79b (Analytic Geom. & Calculus)	5	E.E. 80 (Fields of Static & Moving Charges) *	3
C.E. 5 (Analytic Mechanics) *	5	Physics 20 (Intro. Optics & Acoust.)	3
Geol. 51 (Geology for Engineers)	3	Geol. 52 (Historical Geol. for Engrs.)	3
Meteor. 71 (Intro. Meteor. & Climatology)	3	Bot. 1 (General Botany)	4
Mil. (or Air) Sci. 2a (men)	1	Chem. 21a (Intro. to Anal. Chem.)	3
Physical Education (women)	1	Mil. (or Air) Sci. 2b (men)	1
	17	Physical Education (women)	1
			17
Junior Year			
Math. 180 (Calculus & Diff. Equa.)	5	Geol. 121 (Structural Geology)	3
Math. 91 (Intro. to Statistics)	3	M. E. 130 (Fluid Mechanics)	3
Geol. 7 (Intro. Crystall. & Miner.)	3	C. E. 223 (Hydrology)	3
Geol. 16 (Hand Spec. Petrology)	1	Meteor. 221 (Physical Climatology)	3
Econ. 101 (Contemporary Economics)	3	Geol. 106 (Intro. to Geol. Surveying Meth.)	3
Ag. Chem. 205 (Structure & Phys. Prop. Soils)	3	Humanistic-Social Studies	3
	18		18
Summer Session			
Geol. 212s (Field Geology)	3	Hydr. 214s (Field Hydrology)	3
Senior Year			
Geol. 250 (Princ. of Géomorphology)	3	Geol. 235 (Geol. of Groundwater)	3
C. E. 254 (Photogrammetry)	3	Geol. 324 (Prep. of Geol. Reports)	2
(Resource Economics)	3	Hydr. 280 (Hydrologic Systems)	3
Humanistic-Social Studies	3	Humanistic-Social Studies	6
Electives (Technical) #	6	Electives (Technical) #	3
	18		17

* Phys. 11 may be substituted for C.E. 5, and Phys. 15 may be substituted for E.E. 80.

Electives (Technical):

Ag. Econ. 204 (Land Economics)	3	Geochron. 295 (Dendrochronology)	3
Ag. Chem. 207 (Soil Physics)	4	Geol. 115 (Optical Mineralogy)	3
Ag. Chem. 271 (Water Utilization)	3	Geol. 124 (Introductory Paleontology & Stratigraphy)	3
Chem. 140a-140b (General Organic Chemistry)	4-4	Geol. 208 (Geology of North Amer.)	2
C. E. 224 (Open Channel Flow)	2	Geol. 206 (Engineering Geology)	3
C. E. 270 (Water Supply & Waste Water Disposal)	3	Meteor. 233 (Meteorological Instrumentation)	3

THE GRADUATE COLLEGE

254 ADMISSION OF FOREIGN STUDENTS, for first paragraph, substitute:

ADMISSION OF FOREIGN STUDENTS—It is frequently very difficult to evaluate properly a foreign student's preparation in terms of American requirements for advanced degree programs. For this reason, most graduates of foreign institutions are admitted routinely as *International Special Students* with the understanding that no commitment can be made regarding the time required to complete any course of study and with the further understanding that it may be necessary to require a particular student to undertake certain work without graduate credit in order to make up deficiencies in his preparation. The decision as to whether an International Special Student can qualify immediately for graduate credit will be made during, or at the close of, his first semester of residence.

- 255** "General Prerequisites for Major and Minor Graduate Credit," delete the second paragraph.
- 259** *REQUIREMENTS FOR MASTERS' DEGREES*, before "Special Requirements for the Degree of Master of Science with a Major in Wildlife Management in the Department of Zoology," insert:
 SPECIAL REQUIREMENTS FOR THE DEGREE OF SCIENCE WITH A MAJOR IN REHABILITATION COUNSELING — The degree of Master of Science with a major in rehabilitation counseling is a two-year clinically oriented program. In the event a student has substantial experience in rehabilitation or previous graduate training in a related area, he might reasonably expect to complete requirements for this degree in one and one-half academic years. A candidate for this degree will be required to complete a program of clinical field experience for which he will receive 15 to 18 units of credit. This will include an internship in a rehabilitation facility (3 to 9 units). The clinical and field experience is in lieu of the thesis required for this degree.
 A limited number of stipends in the amount of \$1,800 for the first year and \$2,000 for the second year are provided by the Office of Vocational Rehabilitation, Washington, D.C.
- 275** *CONTINUING EDUCATION, CORRESPONDENCE INSTRUCTION, AND CREDIT BY EXAMINATION*, second paragraph, second line, change "with" to: without.
- 275** For fourth paragraph, substitute:
 If appropriate courses are available, a maximum of 60 units of credit earned through off-campus continuing education classes, correspondence courses, credit by examination, or any combination of these, may be applied toward a bachelor's degree.
- 276** *CREDIT BY EXAMINATION*, last paragraph, substitute:
 If appropriate courses are available, a maximum of 60 units of credit earned through off-campus continuing education classes, correspondence courses, credit by examination, or any combination of these, may be applied toward a bachelor's degree.

Revisions — Courses of Instruction (pages 281-442)

ACCOUNTING

- 283** 101a-101b. Add to description: 101a and 101b offered each semester.
- 283** 102. Delete.

AGRICULTURAL CHEMISTRY AND SOILS

Add new course:

- 288** 205. Structure and Physical Properties of Soils (3) I Anderson
 Shape and size distribution of soil constituents and structural units of soils as related to the state of soil water, its movement into, within, and out of the soil. 3R, 3L. P. Phys. 2b, and Math. 79a-79b or equivalent. Fee, \$6.

ANTHROPOLOGY

- 298** 186. Delete.
- 298** 200. Add to description: (Identical with Art 200)

Add new courses:

- 299** 265. Primitive Technology (3) I Woodbury
Techniques of subsistence, shelter, crafts, including pottery, basketry, and weaving, and travel and transportation, with laboratory analysis of specimens.
- 300** 296a-296b. Comparative Community Organization and Development (3-3) Yr. Spicer-Stone
(Identical with Soc. 296a-296b and Pub. Ad. 296a-296b)
- 300** 405d. Internship in Community Development (2 to 6) I, II Staff
(Identical with Soc. 405d and Pub. Ad. 405d)

ARCHITECTURE

Add new course:

- 301** 214. History of American Architecture (2) I Heck
Study of the developments in American architecture from the early Colonial to the Modern period. P, 6 units of history, art or architectural history.

ART

Add course:

- 303** 200. Native Art of Africa, Oceania & Nuclear America (2) I Pleasants
(Identical with Anthro. 200)

ASTRONOMY

- 305** 120. Change "II" to: I.
- 305** 205. Increase unit value from "(2)" to: (3).
- 305** 212. Increase unit value from "(2)" to: (3).

Add new course:

- 305** 265. The Classification of Stellar Spectra (3) II Meinel
P, 1b or 100b, Phys. 220, 232b, 240.
- 305** 335. Change from "II" to: I.

Add new course:

- 305** 399. Seminar (1) I, II Weymann
Reports on current research and on assigned topics in the journal literature. Required of all graduate students in degree programs.

BOTANY

Add new courses:

- 307** 200. General Mycology (3) I 1962-63 Keener-Gries
(Identical with Pl. Path. 200)
- 308** 340. Physiology of the Fungi (3) II 1962-63 Gries
(Identical with Pl. Path. 340)

CHEMISTRY

- 314** 180. Delete

Add new course:

- 314** 283a-283b. Principles of Physical Chemistry (3-3) Yr. Staff
Introduction to the principles of physical chemistry for students not majoring in chemistry or chemical engineering. P, 20b, Phys. 2b or 15, Math. 20 or 44.

CIVIL ENGINEERING

Add new course:

- 316** 15a-15b. Engineering Mechanics (3-3) Yr. Staff
 Fundamentals of mechanics; vector algebra; equilibrium of particles and rigid bodies. Dynamics of particles and rigid bodies including: kinematics, equations of motion, work and energy, and impulse and momentum. Emphasis on use of vector algebra as a solution tool as well as an analytical one. P, Math. 79b or CR, S.E. 11 or 12, one entrance unit in physics.

CLASSICS

Add new course:

- 321** 299. Special Problems (1 to 5) I, II Staff

ECONOMICS

Add new course:

- 325** 218. Economic Development (3) I Frikart
 The means by which capital formation can be hastened in countries at present underdeveloped. P, 248.
- 327** 391a-391b. Increase unit value from "(2-2)" to: (3-3).

EDUCATION

- 327** *Last paragraph, second line, after "Master of Education," add: Master of Science with a major in rehabilitation counseling.*

Add new course:

- 329** 210. A Survey of the Anatomy, Physiology, and Diseases of the Eye (2) II Staff
 Survey of the anatomy, physiology, and diseases of the eye, and principles of refraction; the relation of visual defects to learning and to school experience.
- 330** 235. *Change title to:*
 Developing Reading Skills in Secondary School.

Add new courses:

- 331** 281. Principles of Rehabilitation (3) II Staff
 Principles underlying rehabilitation programs and interdisciplinary relationships of agencies engaged in rehabilitation services.
- 331** 282. Organization, Structure and Functions of Rehabilitation Agencies (3) II Smith
 Class and field experiences designed to acquaint the student with agencies offering rehabilitation services.
- 331** 283. Case Practices & Procedures in Rehabilitation and
 Related Agency Services (3) I, II Staff
 Intensive study of case procedures and techniques and their application to the functions of rehabilitation and related agencies.
- 331** 284. Techniques of Rehabilitation Counseling (3) II Christiansen
 Principles, methods, and techniques as applied in rehabilitation counseling; consideration of basic theories, current issues in training, and professional practices.

Add course descriptions:

- 332** 346. Comprehensive survey of the various aspects of student personnel work in higher education, including admissions, counseling, housing, student activities.
- 332** 347. Principles and techniques of counseling and their application to the work of the student personnel administrator in colleges. P, Educ. 246.

Add new courses:

- 333** 380. Diagnosis in Vocational Counseling (3) II Christiansen
Critical review of clinical methods, individual appraisal, and vocational diagnosis. Opportunities for case review and analysis.
- 333** 381a-381b. Medical Aspects of Disability (2-2) I, II Staff
Etiology, therapy, and prognosis of the major disabilities; assessment of physical capacities and limitations; typical restorative techniques.
- 333** 382. Psychological Aspects of Disability (3) I Staff
The psychodynamics of adjustment to disability; includes analysis of somato-psychology and psychosomatics.
- 333** 383. Rehabilitative Aspects of Gerontology (3) I Smith
Consideration of recent legislation and state, regional, and national health provisions for the aged; emphasis on effects of disability on the older person.

ELECTRICAL ENGINEERING

Add new course:

- 336** 324. Active Circuit Synthesis (3) II Huelsman
Theoretical active devices such as negative imittance convertors and gyrators are defined, analyzed, and applied to circuit synthesis. Active and passive networks are represented in *n*-dimensional spaces, and transformations on these spaces are studied.

ENGLISH

- 338** *Second paragraph, "The major in English," for "260a or 260b or 265a or 265b," substitute: 3 units of any period course before 1900.*

Add new course:

- 339** 109. Poetry Writing (3) I Childs
The craft of writing poetry through study and analysis of techniques and models; writing of original poetry.
- 339** 205. *Change to: 205a-205b. (3-3) Yr.*
- 340** 240a-240b. *Change to: 240. (3) II.*

GEOCHRONOLOGY

- 346** 371a-371b. *Change course number to: 271a-271b. Decrease unit value from "(4-4)" to: (3-3). Delete "1961-62." Change "(Identical with Geology 371a-371b)" to: (Identical with Geol. 271a-271b).*

GEOGRAPHY AND AREA DEVELOPMENT

- 348** 51. *Increase unit value from "(2)" to: (3).*

GEOLOGY

- 350** 1a-1b. *Change description to:*
I: The physical processes that form and modify the earth. II: The chronological description of how physical processes have changed the earth since its beginning and of the organic evolution of plants and animals. Both 1a and 1b offered each semester. 3R, 3L, including 2 field trips. Fee, \$4 each semester.

Add new courses:

- 350** 4. Introduction to Hydrology (1) II Harshbarger
Occurrence, movement, and development of water; introduction to the hydrologic cycle concept; movement of water from the atmosphere, over and through the earth, and discharge to oceans and return to the atmosphere. Relations which allow man to develop water supplies. 1R.
- 350** 52. Historical Geology for Engineers (3) II Staff
Principles of historical geology with coverage of advanced subject matter in lecture and laboratory; for all engineering and agriculture students, and geology and hydrology majors. 2R, 3L, including 3 field trips. P, Geol. 51. Fee, \$6.
- 350** 124. Change "Students with credit in 124 and/or 202," to: Students with credit in 125 and/or 202.
- 350** 125. Change title to: Introduction to Paleontology. Change description from "significance of fossil invertebrates" to: significance of fossils.

Add new course:

- 351** 251. Geomorphology of Glaciers, Beaches, and Dunes (3) II Melton
Distribution, geomorphology, and controlling agents of glaciers, beaches, and sand dunes. 3R, 4 field trips. P, 208, 250. Fee, \$10.
- 353** 329. Add: 1962-63.
- Add new course:
- 353** 350. Quantitative Geomorphology (3) I Melton
The quantitative description of landforms, principles of dynamic geomorphology, and the forces and energy of erosion and properties of matter that control the interrelations between land-form geometry and climate. Techniques of map analysis; statistical treatment of map and field data. 3R, 4 field trips. P, Geol. 250, 251, and one of the following: Math. 79b, 180, 191. Fee, \$10.
- 353** 365. Increase unit value from "(2)" to: (3); change "I" to: II; add: 1963-64.
- 353** 371a-371b. Change number to: 271a-271b; decrease unit value from "(4-4)" to: (3-3); change "3R" to: 2R; change "(Identical with Geochronology 371a-371b)" to: (Identical with Geochron. 271a-271b); delete: 1961-62.

GERMAN AND RUSSIAN

After heading "Russian," insert:

- 355** The teaching minor consists of 18 units in addition to 1a-1b. Students must include 3a, either 3b or 3c, 175a-175b, and 4 to 6 additional units selected with the consent of the major professor of Russian.

Add new courses:

- 355** 3c. Scientific Russian (4) II Staff
Alternate course for 3b for students interested in reading and translating scientific Russian. P, 3a.
- 355** 175a-175b. Advanced Composition and Grammar (3-3) Yr. Staff
P, 3b or 3c.

GOVERNMENT

- 359** 399. Increase unit value from "(2)" to: (3).

Add new course:

- 359** 405. Internship (2 to 9) I, II Staff
Supervised participation in specific functional assignments with government agencies.

HEALTH, PHYSICAL EDUCATION AND RECREATION

Add new course:

- 362** 300. Critique of Research and Literature in Health,
Physical Education and Recreation (2) II Roby
Survey and critical analysis of selected research and literature in health, physical
education, and recreation. Opportunity for readings according to individual
interest. P, Ed. 390.

HISTORY

Add new course:

- 363** 101a-101b. The Ancient World (3-3) Yr. Parker
The emergence of civilization in Egypt and Mesopotamia; history and culture of
Greece; rise of Rome and its dominance of the Mediterranean world.
- 364** 231. Delete.
- 364** 232. Delete.
- 365** 265. Change "I" to: II; delete "1962-63."
- 365** 269. Change "1961-62" to: 1962-63.
- 365** 272. Add: Will not be offered in 1962-63.

HOME ECONOMICS

*Child Development and Family Relations**Add new course:*

- 366** 47. Creative Activities in the Preschool (2) II Ruley
Basic knowledge and supervised experience in creative activities for teachers of
preschool children; emphasis on developmental implications. Not applicable to
the major in child development.

Clothing, Textiles and Related Art

- 367** 94. Increase unit value from "(2)" to: (3); for description, substitute:
Fibers, yarn, fabric construction, and finishes as related to selection, use, and
care; laboratory analysis of fibers and fabrics. 2R, 3L. P, soph. standing. Fee, \$3.
- 367** 94L. Delete.

Food and Nutrition

- 368** 1a-1b. Change "1a — 1R, 6L" to: 1a — 2R, 3L; change "1b — 6L" to: 1b — 1R, 3L.

Home Economics Education

- 369** 189. Increase unit value from "(6)" to: (1 to 8).
- 372** Add new program following "Humanities:"

HYDROLOGY

Hydrology Committee: Professors J. W. Harshbarger (Geology), *Chairman*; H. J. Miles (Civil Engineering); M. M. Kelso (Agricultural Economics); R. A. Kassander (Meteorology)

Associate Professors D. M. Anderson (Agricultural Chemistry and Soils); T. L. Smiley (Geochronology)

Lecturer J. G. Ferris

Undergraduate Program: Hydrology requires a broad and comprehensive academic training. Courses in geology, engineering, meteorology, mathematics, physics, and chemistry give the student a strong technical foundation, while courses in the humanities and social sciences provide the breadth of outlook so necessary to the

tempering of his technical evaluations in the flux of socio-economic forces. The four-year curriculum leads to the degree of Bachelor of Science in Hydrology and is administered by the Department of Geology in the College of Mines; see page 6 of this supplement.

Graduate Program: Encompassing most of the scientific spectrum, hydrology is an interdisciplinary field. Committee members are selected from the several departments associated with the program.

An undergraduate degree in hydrology is not a singular prerequisite to graduate work in this field. The course of study has been developed to enable graduates from related fields such as geology, civil engineering, agriculture, meteorology, and chemistry to enter directly into this program. Credit in all courses in the undergraduate curriculum in hydrology may not be required for the graduate work if the applicant has fulfilled certain background requirements. Promising applicants, who are deficient in some requirements, may be admitted by taking appropriate courses without graduate credit to satisfy the deficiencies.

Both the Master of Science and Doctor of Philosophy degrees are offered. In some cases, candidates who have not completed the requirements for the master's degree will be admitted to the doctoral program. The Master of Science degree program in all cases must include the following: Geology 324, Meteorology 233, Hydrology 280, Hydrology 340a-340b, Hydrology 341a-341b. The program for the Doctor of Philosophy degree, in addition to the specific courses required for the Master of Science degree, must include the following: Hydrology 342, Geology 350, Geochronology 342, and Meteorology 241a.

- | | |
|---|-----------|
| 280. Hydrologic Systems (3) I | Skibitzke |
| Synthesis of major factors of the atmosphere and lithosphere relating to hydrologic systems of the earth; the major subdivisions of hydrologic systems and their interrelationship; the role of the hydrologist in water resources development. Field trips. 2R, 3L. P, Geol. 250, C. E. 223, Math. 180. Fee, \$5. | |
| 340a-340b. Dynamics of Flow Systems of the Earth (2-2) Yr. | Skibitzke |
| The physical and mathematical principles of flow systems as influenced by environmental factors of the earth; application of classical, numerical, and computer mathematics and solutions to flow and frictional flow systems manifested by surface water and ground water movement in and on the earth. 2R. P, 280, Geol. 235. | |
| 341a-341b. Land Mass Hydrology (3-3) Yr. | Ferris |
| Hydrologic synthesis of land mass phenomena; the mechanics, processes, and morphology of the earth's hydrologic features; interrelationship of sedimentation, chemical quality, and geologic features to the occurrence and movement of water. Field trips. 2R, 3L. P, 340. Fee, \$5. | |
| 342. Analog Model Analysis of Hydrologic Systems (4) II | Skibitzke |
| Application and basic design of analog computers for the analysis of hydrologic systems. 2R, 6L. P, 340b. Fee, \$6. | |
| 345a-345b. Statistical Hydrology (2-2) Yr. | Staff |
| Methods and techniques of solving hydrologic problems with the application of mathematical theories of probability and statistics. Course designed for analysis of the interrelationships of hydrologic systems. | |
| 399. Seminar (1 to 3) I, II | Staff |
| Individual Studies | |
| 400. Research (1 to 4) I, II | Staff |
| 410. Thesis (2 to 4) I, II Maximum total credit permitted, 8 units | Staff |
| 420. Dissertation (1 to 9) I, II | Staff |

LAW

Add new courses:

- 375** 110. Equity I (2) II Irwin-Rappeport
- 375** 130. Equity II (2) I Irwin
- 375** 111. Delete.
- 375** 112. Delete.

MARKETING

- 376** 261. *Change to: 161; change title to: Marketing Principles, delete "and Practices;" for prerequisites, substitute: P, Acct. 1a and Econ. 1a or 2a; add: Open to upper-sophomores.*
- 376** 266. *Increase unit value from "(2)" to: (3).*

MATHEMATICS

Add new course:

- 378** 59a-59b.* Introductory Analytic Geometry and Calculus (3-3) Yr. Staff
Selected topics from analytic geometry and calculus, which will fulfill the requirements for groups desiring familiarity without emphasis on technical competence in calculus. Course may not be used as prerequisite to further courses in the Mathematics Department. Both 59a and 59b offered each semester. P, 20 and 24, or 44.

*Credit is allowed for only one of the following: 59a-59b, 79a.

- 380** 322a-322b. *Delete "1962-63." (Course to be offered every year.)*
- 380** 325a-325b. *Delete "1961-62." (Course to be offered every year.)*

MECHANICAL ENGINEERING

Add new course:

- 382** 143. Applied Thermodynamics (3) II Marcoux

MINING AND METALLURGICAL ENGINEERING

Metallurgical Engineering

- 391** 306. *Change "II" to: I.*
- 392** 332. *Add: 1962-63.*
- 392** 333. *Add: 1962-63.*
- 392** 337. *Increase unit value from "(2)" to: (3); add: 1962-63.*
- 392** 340. *Add: 1962-63.*

Mining Engineering

- 393** 221. *Increase unit value from "(2)" to: (3); change "1R" to: 2R.*
- 393** 303. *Change to: 203.*
- 393** 304. *Change to: 204.*
- 393** 315. *Change to: 215.*
- 393** 321. *Change to: 225.*
- 393** 327. *Delete.*
- 394** 399. *Change "I" to: I, II.*

NUCLEAR ENGINEERING

Add new courses:

- 398** 350. The Direct Conversion of Nuclear Energy (3) II Post
The systems and nuclear engineering requirements necessary to achieve direct conversion of nuclear energy to electrical power; the engineering of fuel elements and reactors for thermionic convertors, fuel cells, thermoelectric, and photo-electric systems.
- 398** 370. Fuel Cycles and Separation Processes for Nuclear Reactors (3) I Post
Design and analysis of fuel cycles for nuclear reactors; chemical processes and requirements for purification of feed materials, separation of nuclear reactor products, and disposal of wastes; processes for isotope separation.
- 399** 399. Seminar (1 to 3) I, II Staff

NURSING

- 401** 142. Change "(2)" to: (2 to 3); change "II" to: I, II; delete "Registration Fee."

ORIENTAL STUDIES

- 403** To recommended courses listed under "Anthropology" add:
288. Peoples of the Philippines (2) II Dozier

PHYSICS

Add new courses:

- 412** 260a-260b. Introduction to Solid State Physics (3-3) Yr. Tomizuka
Primarily for undergraduate physics majors and graduate students minoring in physics. Introduction to crystal structures, classification, thermal properties, dielectric properties, and magnetic properties of solids. Lattice imperfections. Free electron theory of metals, band theory, electrons and holes in semiconductors, rectifiers, transistors, tunnel diodes, ferromagnetism, antiferromagnetism, superconductivity, and low temperature physics. P, 272 or consent of the instructor.
- 412** 272. Introduction to Quantum Mechanics (3) II Staff
Examples of the solution of Schrodinger's equation; perturbation theory; variational methods. Primarily for undergraduate majors in physics or graduate students with minor in physics. P, 2a-2b and Math. 180.

PLANT PATHOLOGY

- 414-15** For all "requirements" following staff and preceding courses, substitute:

Majors in plant pathology will fulfill the minimum requirements of the Agricultural Research curriculum (see page 157). The major includes Pl. Path. 105, 200, 275a, Microbiol. 117a, and other courses to total 16 units. The complete program should include Bot. 1, 2, 132, 203; Chem. 140b; Math. 24; Phys. 1b or 2b; Zoo. 1a; and at least one course each in agronomy, entomology, and horticulture.

Graduate Program: The department offers graduate study leading to the degree Master of Science. The Doctor of Philosophy degree may be earned in the Plant Science Graduate Program with a major in plant pathology. Consult the catalogue of the Graduate College for details concerning opportunities and facilities for graduate work in plant pathology.

415 5. *Substitute:*

105. General Plant Pathology (3) I, II Boyle
Detailed study of representative plant diseases emphasizing basic concepts of diagnosis, cause, epiphytology, and control. 1R, 6L. P, Bot. 1. Fee, \$5.

Add new courses:

- 415** 200. General Mycology (3) I 1962-63 Keener-Gries
Physiology, classification, and morphology of the fungi. 2R, 3L. P, 105 or Bot. 2. Fee, \$10. (Identical with Bot. 200)
- 415** 235. Diseases of Horticultural Plants (3) II Streets
Field, storage, and transit diseases of vegetables, citrus, and deciduous fruits, nuts, and landscaping plants. 1R, 6L. P, 105. One-day field trip. Fee, \$10.
- 415** 245. *For title and description, substitute:* Diseases of Field Crops (3) I Streets
Important diseases of cereal, fiber, oil, and forage crops; emphasis on diseases of the Southwest. 1R, 6L. P, 105. One 2-day field trip. Fee, \$10.
- 415** 250. *Substitute:*
150. Forest Pathology (3) II Keener
Designed for majors in range management and watershed management. Basic principles of plant pathology with emphasis on diseases of forest trees and associated vegetation. 2R, 3L. One-day field trip. P, Bot. 1 or 2. Fee, \$7.
- 415** 255. *Delete.*
- 415** 260. *Delete.*
- 415** 265. *Delete.*
- 415** 270. *Delete.*
- 415** 275. *Change to:* 275a-275b. (3-3) Yr. 1962-63; *for description, substitute:*
Techniques used in the study of bacterial, fungus, nematode, and virus diseases of plants. 1R, 6L. P, 105 and Microbiol. 117a. Fee, \$7 each semester.
- 415** 285. *For description, substitute:*
A field and laboratory course in the identification of fungi, with emphasis on plant-parasitic forms. 1R, 6L. P, 200. Fee, \$10.
- 415** 320. *For title and description substitute:* Plant Virology (3) II 1961-62 Keener
Chemical and physical nature of viruses; methods of identification and transmission of virus diseases. 2R, 3L. P, 275b. One 2-day field trip. Fee, \$7.
- 415** 325. *Delete.*
- Add new courses:*
- 415** 330. Plant Nematology (3) II 1962-63 Staff
Nature, ecology, and classification of the nematodes; diagnosis and control of nematode diseases. 2R, 3L. P, 275b. Fee, \$7.
- 415** 340. Physiology of the Fungi (3) I 1962-63 Gries
Physiological and biochemical aspects of metabolism, growth, reproduction, and pathogenesis of the fungi. 2R, 3L. P, Bot. 303 or Chem. 261b. Fee, \$7. (Identical with Bot. 340)

PSYCHOLOGY

- 417** *Under "The major," for "(a)", substitute:*
(a) 125a, 218, and either 125b or 260b.

418 125a-125b. *For title and description, substitute:*

General Experimental Psychology (3-3) Yr. Marquart
 I: Problems in general experimental psychology. II: Experiments in perception and sensory process. 2R, 3L. Fee, \$5 each semester.

418 205. *Change "II" to: I; for description, substitute:*

Rationale and methods of statistical inference; sampling distributions, power functions, analysis of variance, statistical models; introduction to multiple comparisons, nonparametric techniques, correlation and regression. P, Math. 91 or equivalent.

418 210. *Delete.*

Add new courses:

418 231. Social-Philosophical Psychology (3) I, II MacKinnon

The non-experimental psychology of topics in social organization with humanistic import. P, 10.

418 240. Individual Values and Human Knowledge (2) II MacKinnon

Empirical research and psychological theory concerning human needs and interests.

418 260a-260b. Experimental Social Psychology (3-3) Yr. Zagona

Research methods and problem areas in social psychology. I: Content and methods of data collection. II: Application of experimental techniques to specific problems. 2R, 3L. P, 10, a course in descriptive statistics, and, for 260b, either 125a or 260a also. Fee, \$5.

418 270. Psychology of Learning (3) I Morin

Introduction to the methods and results of psychological research on learning.

418 305. *Delete.***418** 306. *Change from "P, 210" to: P, a course in social psychology; add: Will not be offered in 1962-63.*

Add new course:

418 308. Measurement and Scaling (3) II 1962-63 Coan

Theory of measurement, analysis of measurement operations in psychology, scale transformations, and the construction of measuring instruments. P, 205.

418 309. *Change "I" to: II; change "P, 250" to: P, 205; add: Will not be offered in 1962-63.***418** 311. *Change "I" to: II.***418** 312. *Delete prerequisite.***419** 315. *Delete prerequisite.***419** 322. *Delete.***419** 325. *Change title to:*
Problems in Experimental Psychology.

Add new course:

420 399. Seminar (3) I, II Staff

Recent developments and current issues. Topics for the seminar will be chosen from the following:

- | | |
|---------------------------------|---|
| a. Human information processing | e. Psychodiagnostic methods |
| b. Learning | f. Psychopathology |
| c. Perception | g. Theory and techniques of psychotherapy |
| d. Physiological psychology | h. Clinical psychology and culture |

PUBLIC ADMINISTRATION

420-21

(New department — program formerly administered by an interdisciplinary committee)

For all material up to "Special Program in Metropolitan-Regional Planning," substitute:

Professors Mulligan (Head of Department), Shoults

Associate Professor Bingham

Assistant Professors Chiles, Fuller

Lecturers Garmire, Hoffman

Undergraduate students who register for the degree of Bachelor of Science in Public Administration will fulfill the requirements for freshman-sophomore years and for one of the four major concentrations described in the announcement of the College of Business and Public Administration.

The Graduate College offers the Master of Public Administration degree, described on pages 262-63. Undergraduate preparation for this degree may be in history, government, sociology, economics, business administration, and public administration, or appropriate combinations thereof.

Undergraduate preparation for the examinations governing entrance into careers in the State Department (foreign and domestic service) may be undertaken in the College of Liberal Arts or in the College of Business and Public Administration.

421

Following description of "Special Program in Metropolitan-Regional Planning," add:

Graduate Program in Community Development

Specialized training is offered in community development, taking advantage of the University's strategic location near Indian, Mexican, and Anglo-American communities where both research and organized development programs are being conducted. Students enrolled in the Graduate College for the Master of Arts degree in anthropology or sociology, or the Master of Public Administration degree, may participate in the community development program and also complete the requirements for the M.A. or M.P.A. degree in any one of these departments. Nine units of specialized course work (Sociology 296a-296b, 6 units, and Sociology 253, 3 units) plus one semester of field internship (Sociology 405d, 2 to 6 units) in an on-going community development project are required. The 9 units of classroom courses may be included within the 30 units required for the degree, but the units of internship are an additional requirement. With the consent of the department, candidates for the Master of Public Administration degree may either submit a thesis or complete a written diary-report of their internship.

Add new courses:

421

1. Social Administration (3) I, II

Staff

Over-all view of the principles of administration in the fields of welfare, social work, corrections, social security, law enforcement, and public recreation.

421

101. Introduction to Law Enforcement (3) I, II

Shoults

Philosophical and historical background of law enforcement at the state, county, city, village, and township level; exploration of the law-enforcement structure in the United States today; career orientation and career opportunities. P, 1, and 6 units of govt.

421

138. Fields of Social Work (3) I, II

Chiles

The backgrounds, philosophy, fields, and methods of social work. P, 1.

- 421** 240. *Change instructor to: Hoffman; for description, substitute:*
Extent, causes, and treatment of child welfare problems in the field of social work. P, 1.

Add new courses:

- 421** 241. Public Welfare Administration (3) I Fuller
Development of public welfare services; problems of administration and organization; programs for public assistance. P, 1.

- 421** 242. Case Work (3) II Fuller
Analysis of case work practices; field experience in local agencies. Required of majors in social administration; others admitted with special permission of instructor. P, 138, 241.

- 422** 265. *Change title to: Federal Law Enforcement Systems.*

- 422** 270. *Change "I, II" to: I.*

Add new course:

- 422** 284. The Administration of Health Agencies (3) II Staff
The principles of administration as applied to various health settings under private or public auspices; basic ideas, problems, and processes in health administration. P, 1.

- 422** 287. *For description, substitute:*
Specific mental and emotional disorders of criminal behavior from the point of view of causation and development of abnormal behavior; consideration of various approaches of diagnosis and treatment in psychiatric settings. P, Soc. 87, and Psych. 1b.

Add new courses:

- 422** 288. Penology (3) I Chiles
Structure, social relationships, and social processes of the prison community; theories and methods of rehabilitation. P, Soc. 87.

- 422** 289. Prison Administration (3) II Chiles
The administration of policies and procedures in the reception, diagnostic study, classification, and treatment of inmates. P, 288.

- 422** 296a-296b. Comparative Community Organization and
Development (3-3) Yr. Spicer-Stone
(Identical with Anthro. 296a-296b and Soc. 296a-296b)

- 422** 301. *For title and description, substitute:*
Social Relations and Administration (2) II Staff
Social systems associated with various forms of administrative structure; relationship of administrative structure to the larger society. (Identical with Soc. 301)

- 422** 345. *Change title to:*
Advanced Public Finance.

- 422** 368. *Change to: 271. Law Enforcement Professionalization.*

Add new courses:

- 422** 400. Research (1 to 4) I, II Staff

- 422** 405d. Internship in Community Development (2 to 6) I, II Staff
(Identical with Anthro. 405d and Soc. 405d)

- 422** 405h. Health Agency Administration (2 to 6) I, II Staff
Students will serve an internship of 2 semesters on a full-time basis in a health-service agency under the direct guidance of a responsible administrator.

RELIGIOUS STUDIES

- 423** *Psychology 103, change title to: Psychology of Religion.*

ROMANCE LANGUAGES

- 424** *French 5a-5b. Change number and title to:
French 75a-75b, Composition and Conversation.*

Add new courses:

- 425** *Italian 299. Special Problems (1 to 4) I, II* Staff
425 *Portuguese 299. Special Problems (1 to 4) I, II* Staff

Change the following:

- 426** *Spanish 399a. To: 320a-320b. (2-2) Yr. 1962-63*
Spanish 399e. To: 351 (2) I 1962-63
Spanish 399j. To: 374 (2) II 1962-63
Spanish 399m. To: 315 (2) I 1962-63

SOCIOLOGY

- 429** *40. Delete.*
429 *60. Decrease unit value from "(4)" to: (3).*
429 *87. Change number to: 187; change "Garabedian" to: Staff.*
429 *138. Delete.*
429 *143. Delete.*
429 *145. Delete.*
429 *166a-166b. Delete.*
429 *210. Delete.*
429 *240. Delete.*
430 *261. Change number to: 161.*

Add new courses:

- 430** *260. Intermediate Sociological Methods (3) II* Rivera
Scaling techniques; ecological, population, and other community surveys; construction of schedules and questionnaires, and application of statistical methods. 2R, 1L. P, 161.
430 *263. Advanced Social Statistics (3) II* Snow
Methods of analyzing social data with emphasis upon statistical inference, hypothesis, testing, and tests of relationship. 2R, 1L. P, 60, 161.
430 *287. Delete.*
430 *288. Delete.*
430 *294. Increase unit value from "(2)" to: (3). Change "P, 261" to: 161.*

Add new course:

- 430** *296a-296b. Comparative Community Organization and
Development (3-3) Yr.* Spicer-Stone
Survey of the operation of community development programs in various under-developed areas of the world. P, 6 units of sociology or anthropology. (Identical with Anthro. 296a-296b and Pub. Ad. 296a-296b)



Page

- 430** 301. *For title and description, substitute:*
 Social Relations and Administration (2) II Staff
 (Identical with Pub. Ad. 301)

Add new course:

- 431** 405d. Internship in Community Development (2 to 6) I, II Staff
 Internship in an established community development program, usually for 15 weeks. May be repeated once for additional credit. (Identical with Anthro. 405d and Pub. Ad. 405d.)

SPEECH

- 432** 281. *Decrease unit value from "(4)" to: (3); change "3R" to: 2R.*
432 282a-282b. *Decrease unit value from "(3-3)" to: (2-2); change "3R" to: 1R.*

Add new course:

- 433** 377a-377b. Differential Diagnosis (3-3) Yr. England
 Study and application of diagnostic methods used in analyzing the nature of communicative disorders and in determining rehabilitative procedures. 2R, 3L. P, 270, 279.

SYSTEMS ENGINEERING

Add new course:

- 433** 1. Orientation for Foreign Students (1) I Staff
 Detailed information on matters, generally known by American students, concerning classroom customs, procedures, and teaching methods.

WATERSHED MANAGEMENT

Add new course:

- 436** 197. Watershed-Forestry Field Studies (9) Summer McComb
 Field study and practice in forest measurements and surveying, watershed management, silviculture, range management, and forest operations and utilization. P, jr. standing or consent of instructor. Fee, \$50.

ZOOLOGY

- 439** 1a-1b. *For description, substitute:*
 An introductory course in the structure, function, development, and behavior of animals. I: Emphasis on a representative vertebrate and the invertebrates. 2R, 6L. II: Emphasis on zoological principles as illustrated by the phylum Chordata. 2R, 6L. Fee, \$10 each semester.
444 360. *Change number to: 269.*